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<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/616,365	CHENG ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Zachary C. Tucker	1624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--  
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- 1. ☒ This communication is responsive to 9 March 2007.
  - 2. ☒ The allowed claim(s) is/are 1,3,5,10,11,13-15 and 17-19.
  - 3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    - 1. ☐ Certified copies of the priority documents have been received.
    - 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    - 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

- 4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  - 5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
- 6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

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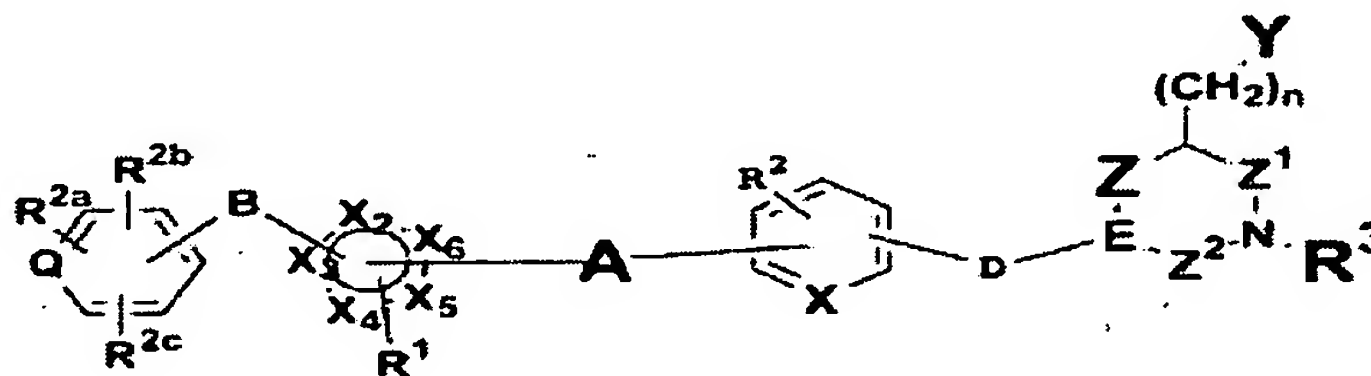
**EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The abstract has been amended as follows, to correct obvious errors in its drafting, namely that there is no verb-subject relationship in the language of the abstract so as to form complete sentences.

**IN THE ABSTRACT –****Abstract of the Disclosure**

Substituted heterocyclic derivatives are provided which have the structure



wherein  $Z^1$  is  $(CH_2)_q$  or  $C=O$ ;

$Z^2$  is  $(CH_2)_p$  or  $C=O$ ;

D is  $-CH=$  or  $C=O$  or  $(CH_2)_m$  where m is 0, 1, 2 or 3;

$n = 0, 1$  or  $2$ ;  $p = 1$  or  $2$ ;  $q = 0, 1$  or  $2$ ;

Q is C or N;

~~A is  $(CH_2)_x$  where x is 1 to 5, or A is  $(CH_2)_x$  where x<sup>1</sup> is 1 to 5 with an alkenyl bond or an alkynyl bond embedded anywhere in the chain, or A is  $(CH_2)_x$  O  $(CH_2)_x$  where x<sup>2</sup> is 0 to 5 and x<sup>3</sup> is 0 to 5, provided that at least one of x<sup>2</sup> and x<sup>3</sup> is other than 0[(:)]~~

~~B is a bond or is  $(CH_2)_x$  where x<sup>4</sup> is 1 to 5[(:)]~~

X is CH or N;

$X_2$  is C, N, O or S;

$X_3$  is C, N, O or S;

$X_4$  is C, N, O or S;

$X_5$  is C, N, O or S;

$X_6$  is C, N, O or S;

provided that at least one of  $X_2$ ,  $X_3$ ,  $X_4$ ,  $X_5$  and  $X_6$  is N; and at least one of  $X_2$ ,  $X_3$ ,  $X_4$ ,  $X_5$  and  $X_6$  is C[(:)];

~~R<sup>1</sup> is H or alkyl[(:)]~~

~~R<sup>2</sup> is H, alkyl, alkoxy, halogen, amine or substituted amine[(:)]~~

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~~R<sup>2a</sup>, R<sup>2b</sup> and R<sup>2c</sup> may be the same or different and are selected from H, alkyl, alkoxy,~~  
~~halogen, amino, substituted amino or cyano[(:)] and~~  
A, B, R<sup>1</sup>, R<sup>2</sup>, R<sup>2a</sup>, R<sup>2b</sup>, R<sup>4</sup>, R<sup>3</sup>, E, Z and Y are as defined herein.

In addition, a method is provided for treating diabetes, Type 2 diabetes, insulin resistance, hyperglycemia, hyperinsulinemia, elevated blood levels of fatty acids or glycerol, hyperlipidemia, obesity, hypertriglyceridemia, Syndrome X, or atherosclerosis, wherein the substituted heterocyclic derivatives are administered in a therapeutically effective amount to a patient.

end of amendment

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***Response to Amendment***

As requested in the correspondence filed 9 March 2007 (hereinafter "present amendment"), which is in reply to the Office action mailed 8 December 2006 (hereinafter "previous Office action"), claims 1, 15 and 17-19 have been amended.

***Note Change of Examiner***

Applicants and applicants' counsel should note that Zachary C. Tucker, primary examiner in Group Art Unit 1624, is now charged with examination of this application. The cover sheet for the present amendment lists Jason H. Johnsen, in Group Art Unit 1624, as the examiner. Examiner Johnsen is no longer at the Office.

***Election/Restrictions***

Because claims of the Restriction Group elected for examination, Group I, is now in condition for allowance, the still-pending claims of Restriction Group III (claims 17-19) are rejoined. The Requirement for Restriction as set forth in the Office action mailed 11 October 2005 is hereby WITHDRAWN.

***Status of Claim Rejections - 35 USC § 112***

In the previous Office action, claim 15 was rejected under 35 U.S.C. 112, first paragraph, for lack of a disclosure enabling the treatment of "diabetic complications," in general, as was specified in the claim.

The rejection is hereby withdrawn in view of the present amendment, which strikes the term "diabetic complications" from claim 15.

In the previous Office action, claims 1, 3, 5, 10, 11 and 13-16 were rejected under 35 U.S.C. 112, second paragraph, for indefiniteness, because in the definition of variable "Y," the term "prodrug esters" was recited, while the same term is recited at the end of the claim, where it is specified that the compounds according to instant claim 1 include "prodrug esters thereof, stereoisomers thereof, and pharmaceutically acceptable salts

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thereof.” Recitation of the term “prodrug esters” in both places was deemed to render the scope of the claim ambiguous.

In view of the present amendment to instant claim 1, which deletes the term “prodrug esters” from the definition of variable “Y” in instant claim 1, the rejection of claims 1, 3, 5, 10, 11 and 13-16 as being indefinite is hereby withdrawn.

#### ***Obviousness-Type Double Patenting Rejections***

In the previous Office action, claims 1, 3, 5, 10, 11, 14 and 15 were rejected under the doctrine of obviousness-type double patenting, as being unpatentable over the claims of U.S. Patent No. 7,105,556 and copending Application No. 11/406,799.

In view of the Terminal Disclaimers filed over both US 7,105,556 and copending Application No. 11/406,799, the obviousness-type double patenting rejections are hereby withdrawn.

The terminal disclaimers filed on 19 March 2007, disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US 7,105,556 and any patent which issues from Application No. 11/406,799 have been reviewed and are accepted. The terminal disclaimers have been recorded.

#### ***Claim Objections***

In the previous Office action, claim 1 was objected to in addition to being rejected under 35 U.S.C. 112, because the term “alkyloxycarbonylaryloxycarbonyl” was recited twice in the definition of variable “R<sup>3</sup>.” In view of the amendment to claim 1 which deletes one occurrence of the term, the objection is withdrawn.

In the previous Office action, claim 15 was objected to because two substantially synonymous terms were recited in the list of conditions treated by the method set forth in that claim. “Dysmetabolic syndrome” and “Syndrome X” are synonymous. Applicants have deleted “dysmetabolic syndrome” from claim 15, thus the objection is withdrawn.

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***Allowable Subject Matter***

Claims 1,3,5,10,11,13-15 and 17-19 are allowed.

Reasons for allowance over the prior art were provided at pages 10 and 11 of the previous Office action.

Applicants have followed the suggestions given by the examiner with regard to the withdrawn claims in the application, claims 17-19, and have amended them accordingly. This is appreciated.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

All Post-Allowance Correspondence concerning this application must be mailed to:  
Mail Stop Issue Fee  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Or you can fax them to the Office of Patent Publications at 703-872-9306, in order to expedite the handling of such correspondence as amendments under 37 CFR 1.312; information disclosure statements, and formal drawings. Sending Post-Allowance papers to Technology Center 1600 will only cause delays in matching papers with the case.

For information concerning status of correspondence sent after receipt of the Notice of Allowance, please contact the Correspondence Branch at (703) 305-8027. The Notice of Allowance also has an insert containing contact information on other items, including Issue Fees, receipt of formal drawings and the status of the application.



ZACHARY C. TUCKER  
PRIMARY EXAMINER